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TWO HUNDRED AND EIGHTY-SEVENTH MEETING,
JUNE 3, 1915.

The 287th regular meeting of the Society was entertained by the Executive Committee at Saengerbund Hall, June 3, 1915. The following were present: Messrs. Barber, Böving, Caudell, Craighead, Crawford, DeGryse, Ely, Greene, Hall, Heinrich, Hood, Jackson, Knab, McIndoo, Middleton, Quaintance, Sanford, Schwarz, Shannon, Snyder, Strauss, Turner, members, and Mr. R. M. Garner, visitor.

The following papers were presented:

A NEW SPECIES OF CEPHENOMYIA FROM THE
UNITED STATES.

(Diptera; *Æstridæ*)

BY W. D. HUNTER.

In November, 1910, the late F. C. Pratt obtained a number of *æ*strid larvæ from the nasal passages of a deer (*Odocoileus virginianus texanus*) which was shot in the vicinity of Sabinal, Texas. By exercising extreme care Mr. Pratt succeeded in rearing two adults, a male and a female. In addition to the adults the writer has in his possession three puparia and five larvæ from the same source. The species has been found to be new and is described herewith.¹

The only American species described under the genus *Cephenomyia* is *phobifer* Clark. As has been pointed out by Brauer this

¹ On first examination it was thought to be a European form and was referred to as such by the writer, see Proc. Ent. Soc. Washington, XIII, p. 88.

form, in all probability, does not belong to the genus *Cephenomyia*. At any rate Clark's description and the notes by Brauer show that it is entirely distinct from the form described in this paper.

Brauer¹ described a larval *Cephenomyia* obtained from *Cervus macrotis* in North America (not named in body of work but referred to as *C. macrotis* in index) and also recorded² the larva of *Cephenomyia ulrichii* Brauer from an American elk. Both of these forms are quite distinct from our species. Brauer also listed *Cephenomyia* sp. from "Durango."³ The remaining American records of *Cephenomyia* are two notes in *Insect Life*, concerning the finding of larvæ in hogs in Virginia⁴ and in man and deer in California.⁵ The California specimens from the deer have been examined by the writer. They appear to be the same as the form described in this paper. The specimens from man are immature and cannot be determined.

***Cephenomyia pratti* n. sp.**

Male. Ground color everywhere shining black. Pile of body light yellowish white except a few hairs between the antennæ and the eye margins, a broad band extending across the dorsum of the thorax, and the first three abdominal segments which have black pile. The pile of the legs is black except a white tuft at the base of the inner side of all the femora. Length 13 mm.

Female. Ground color shining black as in male, no pulverulence. Pile of head light yellowish white except between the base of the antennæ and the eyes. Pile of thorax and scutellum whitish except for a broad black transverse band between the bases of the wings. This band is interrupted in the middle by yellowish hairs. Pile of first three abdominal segments bright ferruginous, of remainder whitish. Pile of legs black, except white tufts at bases of inside of all femora.

Eye margins converging toward vertex. Antennæ black, arista dark brown. Wings black at extreme base, otherwise hyaline, veins brown. Venation typical for genus. Tegulæ whitish, very narrow margin brown. Legs black, posterior femora and tibiæ slightly brownish. Claws black. Pulvilli whitish. Length 13 mm.

Described from two specimens, Sabinal, Texas, November and December.

Host: *Cervus virginianus texanus*.

Type: Cat. No. 19966, U. S. National Museum.

The name is in honor of the late F. C. Pratt.

¹ Monographs der Oestriden, pp. 211-212.

² L. c., p. 202.

³ Die zweiflügler des kais. Mus. Wien. III, p. 82, 1883.

⁴ III, p. 151.

⁵ II, p. 116.

The affinities of this species as shown by the adults and immature stages are with *C. ulrichii* Brauer. It differs, however, in not having the eye margins parallel above in the female, in not having interrupted transverse band of yellow pile on the abdomen and in having anterior femora with white hairs on the inner side at the base. It is also considerably smaller in size.

Larva: Third stage. Differs from its nearest relative *C. ulrichii* in having spines on segments 3-4 large and subequal.

Length 26-39 mm. Color yellowish brown, each segment with circular black spots, more numerous on posterior segments. Mouth-hooks arcuate but not curved backwards.

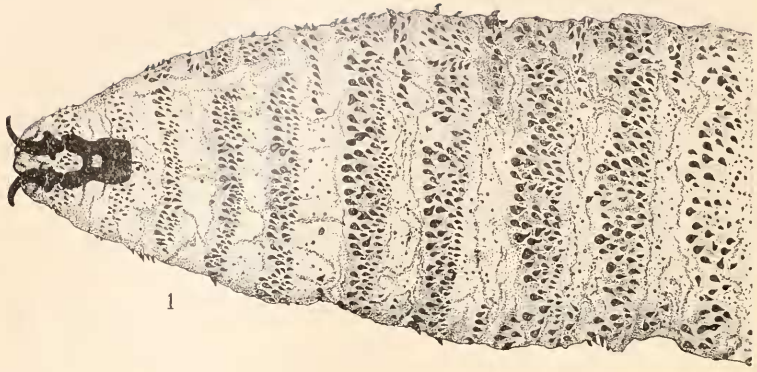
Upper side. Spines large, black, numerous, all those on segments 2-3 nearly equal in size, further described as follows: head segment (seen from in front), three irregular rows, those of the first row larger; first segment none; second segment two to three irregular rows subequal; third segment, three to four irregular rows, those of first rows equal in size, in third row somewhat smaller; fourth segment, four rows, subequal, three isolated spines on lateral posterior margin; fifth segment, four rows anteriorly and four to eight in lateral posterior rows; sixth segment, five anterior rows, spines of last rows considerably smaller, six to eight in posterior lateral rows; seventh segment, five to six rows smaller toward rear, lateral posterior rows of six to eight spines; eighth segment, seven irregular rows, the first having the spines well separated, about six spines on posterior lateral margins; ninth segment, four rows, well separated, two to three on posterior lateral margins; tenth segment with only two to three spines on each side near anterior margin, and two entire rows on posterior declivity.

Lower side. Second segment, two rows in middle, three on sides; third segment, four rows, subequal; fourth segment five rows, those of first two somewhat larger; fifth segment, six to seven rows, those of first two rows considerably larger; sixth segment, seven rows; seventh segment, seven rows; eighth segment, six rows more sparsely placed than on preceding segments; ninth segment, like eighth; tenth segment, four to five rows, isolated; eleventh segment, on anterior margin at middle, three short rows, one on sides, under posterior declivity, one transverse and three semi-circular rows.

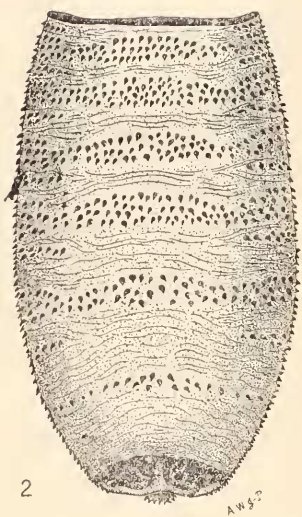
Posterior stigma large, interior margins parallel, no indications of radiating lines, black, with three to four small shining tubercles near lateral margins.

Described from five specimens.

Puparium: Above. Second segment, three rows of spines; third to eighth segments, three to four rows; ninth segment, one row in middle, two on each side; tenth segment, one row interrupted in middle. Dried specimens show numerous fine transverse ridges which are not evident in alcoholic specimens. Black. Length 20 mm., width 7 mm.

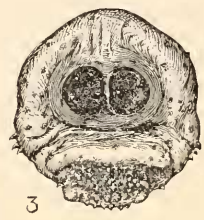


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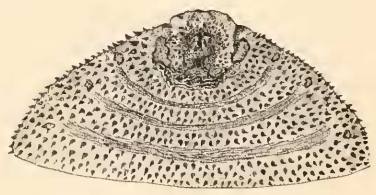


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A.W.S.



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EXPLANATION OF PLATE XVI.

Cephenomyia pratti Hunter.

Fig. 1. Skin of dorsum of larva in third stage, cleared and mounted in balsam.

Fig. 2. Puparium.

Fig. 3. Posterior stigmata of larva.

Fig. 4. Larva, ventral view of anterior portion.

Described from three specimens.

The writer is indebted to Messrs. F. Knab and N. Banks for advice regarding the specimens used in the preparation of this paper

NOTE

Since the manuscript of this article was submitted for printing an important paper by Dr. J. M. Aldrich has appeared: The Deer Bot-Flies (genus *Cephenomyia* Latr.), J. N. Y. Ent. Soc. XXIII, pp. 145-150, 1 pl. Dr. Aldrich describes a new species under the name *abdominalis*. This species, however, is quite distinct from *pratti* in the striking difference in the color of the abdominal pile and in the dark anterior wing margins, which Dr. Aldrich informs the writer are even darker than this illustration shows, in fact quite blackish from the anterior cross vein forward.

SOME MODIFICATIONS OF THE HYPOPHARYNX IN
LEPIDOPTEROUS LARVÆ.¹

BY J. J. DEGRYSE.

Branch of Forest Insects, U. S. Bureau of Entomology.

In his morphological study on the mouthparts of Crustaceans and Insects,² published in 1893, H. J. Hansen contends that the paired appendages existing on the sides of the hypopharynx

¹ Since writing this paper I had the opportunity of again examining Lyonet's *Traité anatomique de la Chenille qui ronge le bois de Saule* (The Hague, 1762). His figures of the labium and hypopharynx are most interesting especially from the standpoint of the internal anatomy of the lower lip. He refers to the so-called maxillulæ as "Rebords de la Lèvre inférieure." In Chap. IV, p. 62, he gives his theory of the function of these organs. In spite of the imperfection of his instruments, Lyonet's dissections are remarkably accurate. The shape of the chitinous blades or spines was no doubt beyond the power of his microscope. As to the arrangement of the muscles, I think there is a slight confusion in the drawing (Lyonet, Pl. XVII, fig. 25), though in the text (Chap. XVII page 563), the author supposes the existence of other muscles, besides those figured in Pl. XVII, by so doing he partly solves our difficulty. I have not studied the particular species described by the master, but from a comparison with other lepidopterous larvæ, it is probable that his muscle *I* should consist of two different muscles *I'* and *I''*. *I'* is attached dorsally to the mental arm and ventrally to the threadpress on the salivary glands. *I''* is attached dorsally to the same press and ventrally to the mentum. Each of these muscles is provided with a separate embranchment *C'* and *C''* of the trachea indicated by the letter *C* in Lyonet's drawing. (See pl. 19, fig. 7).

² "Zur Morphologie der Gliedmassen und Mundtheile bei Crustaceen und Insekten." Zool. Anz. XVI, 1893, pp. 193-8 and 201-212.